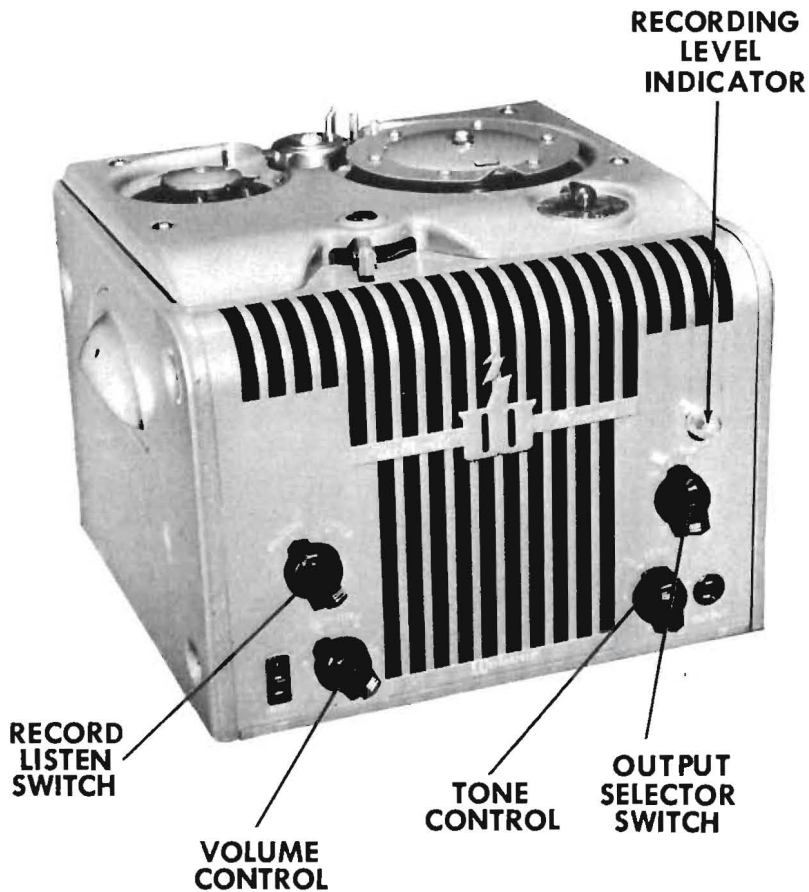




WEBCOR  
MODEL 181-1R



WEBCOR  
MODEL 181-1R

TRADE NAME	Webcor Model 181-1R		
MANUFACTURER	Webster Chicago, 5610 Bloomingdale Ave., Chicago 39, Illinois		
TYPE SET	AC Operated Wire Recorder and Amplifier		
TUBES (Four)	Types 6SJ7 Mic Pre Amp., 6J5 AF Amp., 6V6GT Audio Output, 6X5GT Rectifier		
POWER SUPPLY	110-120 Volts AC-60 Cycles	RATING	.3 Amp @ 117 Volts AC

FOR SERVICE INFORMATION ON THE MECHANICAL PORTION OF THIS UNIT-SEE PHOTO FACT SET 156-FOLDER 13 OR RECORD CHANGER MANUAL CM-4.

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed."

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DATE 11-53

SET 221

FOLDER 13

PARTS LIST AND DESCRIPTIONS

WEBCOR  
MODEL 181-R

TUBES (SYLVANIA, GENERAL ELECTRIC or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		WEBCOR PART No.	STANDARD REPLACEMENT		
V1	Mic Pre Amp	6SJ7	6SJ7	8N	
V2	AF Amplifier	6J5	6J5	6Q	
V3	Audio Output	6V6GT	6V6GT	7S	
V4	Rectifier	6X5GT	6X5GT	6S	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	WEBCOR PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1A	.25	450		AFH3-33		CO25		FP376.1	R1359	
B	.15	350								
C2A	.15	250		AFH3-119		BO29		FP345.5	TVL-3675	
B	.15	350				BR502A				
C	.40	25								
C3	.10	25		PRS25/10		BR102A		TC22	TVA-1204	
C4	.001	600		P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	
C5	.0001	1000						TP401	6TM-T1	
C6	.01	100								
C7	.02	600		P688-02	DF-203	PTE6S2		PT612	6TM-S2	
C8	.02	600		P688-02	DF-203	PTE6S2		PT612	6TM-S2	
C9	.05	600		P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C10	.01	400		P488-01	D6-103	PTE4S1	GP2-333-103	PT411	4TM-S1	
C11	.05	600		P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C12	.0022	600		P688-0022	D6-222	PTE6D22	GP2-333-222	PT6222	6TM-D22	
C13	.0022	600		P688-0022	D6-222	PTE6D22	GP2-333-222	PT6222	6TM-D22	
C14	.0022	600		P688-0022	D6-222	PTE6D22	GP2-333-222	PT6222	6TM-D22	
C15	.5	400		P488-5		PTE4P5		PT405	4TM-P5	
C16	.015	600				PJ6S15			6TM-S15	
C17	.015	600				PJ6S15			6TM-S15	

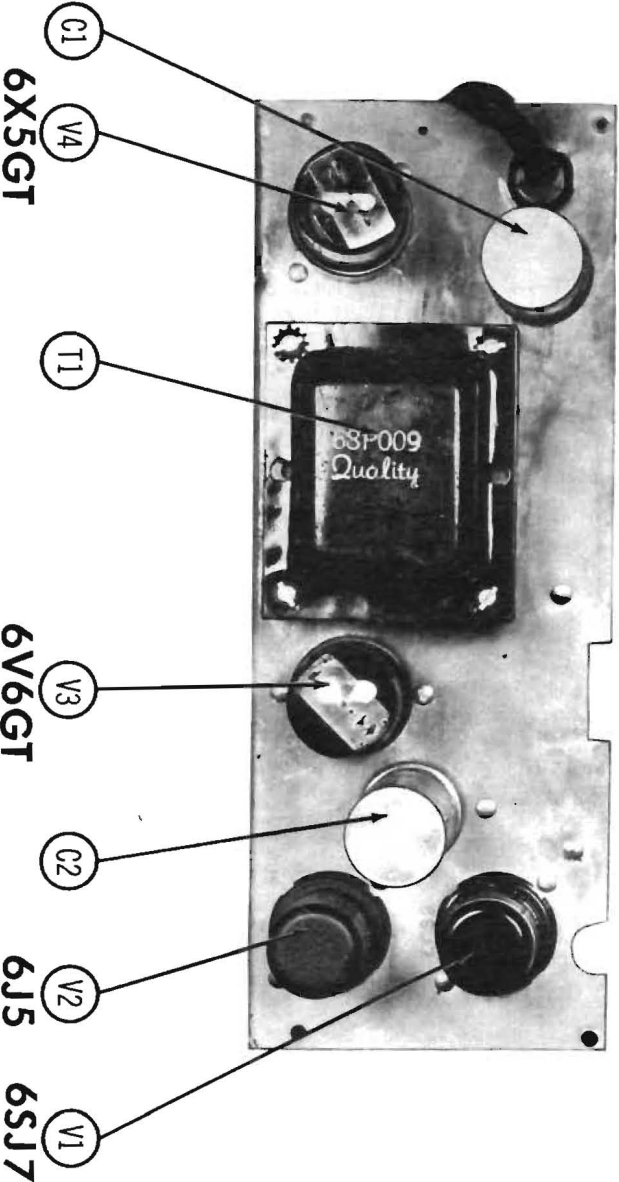
CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	WEBCOR PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.	
R1A	1 Meg	1/2	31P035	Q13-137	AG-63-Z	BSK-70	U-53	Volume
B	Shaft		Not Req.	Not Req.	KSS-3	Not Req.	Not Req.	Attach to R1A
R2A	500K $\Omega$	1/2	31P049	Q11-133	AG-58-S	AB-59	SU-50	Indicator Level
B	Shaft		Not Req.	RQ	FKS-1/4	AK-1	Not Req.	Attach to R2A
R3A	50K $\Omega$	1/2	31P036	Q13-123	AG-46-Z	AB-32	U-34	Tone
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	Not Req.	Attach to R3A
C	Switch		Not Req.	76-1	SWB	KB-1	US-26	Attach to R3A

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		NOTES	ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	WEBCOR PART No.	IRC PART No.			OHMS	WATT	WEBCOR PART No.	IRC PART No.	
R4	100K $\Omega$	1/2		BTS-100K		R14	470K $\Omega$	1/2		BTS-470K	
R5	4.7Meg	1/2		BTS-4.7Meg		R15	470K $\Omega$	1/2		BTS-470K	
R6	1 Meg	1/2		BTS-1 Meg		R16	68K $\Omega$	1/2		BTS-68K	
R7	150K $\Omega$	1/2		BTS-150K		R17	820 $\Omega$	1/2		BTS-820	
R8	100K $\Omega$	1/2		BTS-100K		R18	22K $\Omega$	1/2		BTS-22K	
R9	1000 $\Omega$	1/2		BTS-1000		R19	270 $\Omega$	1		BTA-270	
R10	39K $\Omega$	1/2		BTS-39K		R20	1000 $\Omega$	5		1 3/4A-1000	
R11	820 $\Omega$	1/2		BTS-820		R21	3.3 $\Omega$	2			
R12	220K $\Omega$	1/2		BTS-220K							
R13	270K $\Omega$	1/2		BTS-270K							

CHASSIS—TOP VIEW



## PARTS LIST AND DESCRIPTIONS (Continued)

### TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA				
	PRI.	SEC. 1	SEC. 2	SEC. 3	WBCOR PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.
T1	117VAC @ .30A	560VCT .042ADC	6.3VAC 1.6A		68P009	PM-8407 ①	P-3048	R-7B	

① Tape extra 5 volt winding

### TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA					NOTES
	IMPEDANCE		DC RES.		WBCOR PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	
	PRI.	SEC.	PRI.	SEC.						
T2	5K $\Omega$	3.4 $\Omega$	357 $\Omega$	1.1 $\Omega$	87P011	A-3877 ①	A-2930 ①	RO-9 ①	S-3X ①	① Drill one new mounting hole.

### SPEAKER

ITEM No.	RATINGS				REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C.	IMP.	WBCOR PART No.	JENSEN PART No.	QUAM PART No.	
SP1	5"	PM	3.4 $\Omega$		78P016	ST-105 Mod. P5-X	5A07	

### COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	WBCOR PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Osc. Coil	.1 $\Omega$	12 $\Omega$	65P024				Sec. tapped @ .8 $\Omega$

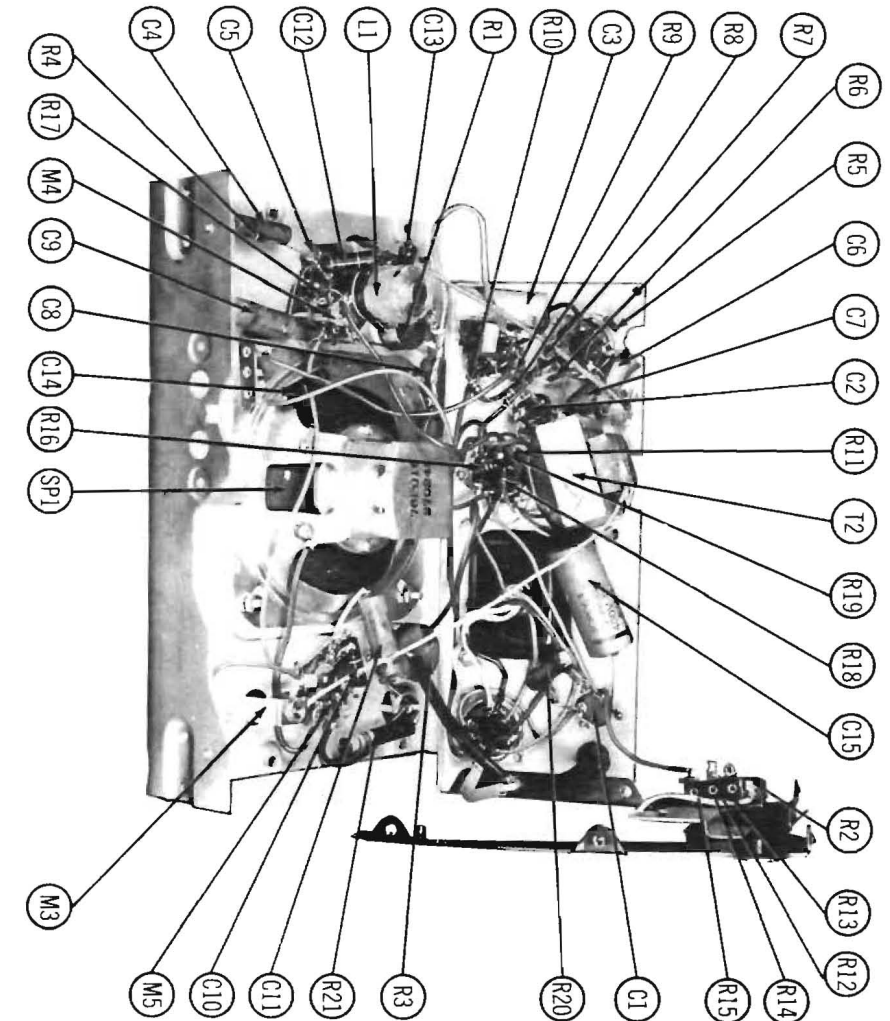
### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			WBCOR PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1A	3AG	1A @ 250V			312001 (3AG-1Amp)		AGC-1	
B	3AG	1A @ 250V			312001 (3AG-1Amp.)		AGC-1	

### MISCELLANEOUS

ITEM No.	PART NAME	WBCOR PART No.	NOTES
M2	Pilot Light		Type #51
M3	Neon Bulb		Record Level Indicator (Type NE51)
M4	Switch	32P040	Record-Playback Selector
M5	Switch	32P041	Output Selector

## CHASSIS—BOTTOM VIEW





## PARTS LIST AND DESCRIPTIONS (Continued)

### TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA				
	PRI.	SEC. 1	SEC. 2	SEC. 3	WEBCOR PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.
T1	117VAC @ .30A	580VCT .042ADC	6.3VAC 1.6A		68P009	PM-8407 ①	P-3048	R-7B	

① Tape extra 5 volt winding

### TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA					NOTES
	IMPEDANCE		DC RES.		WEBCOR PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	
	PRI.	SEC.	PRI.	SEC.						
T2	5K $\Omega$	3.4 $\Omega$	357 $\Omega$	1.1 $\Omega$	67P011	A-3877 ①	A-2930 ①	RO-9 ①	S-3X ①	① Drill one new mounting hole.

### SPEAKER

ITEM No.	RATINGS				REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C.	IMP.	WEBCOR PART No.	JENSEN PART No.	QUAM PART No.	
SP1	5"	PM	3.4 $\Omega$		76P016	ST-105 Mod. P5-X	5A07	

### COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
				WEBCOR PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
		PRI.	SEC.					
L1	Osc. Coil	.1Ω	12Ω	65P024				Sec. tapped @ .8Ω

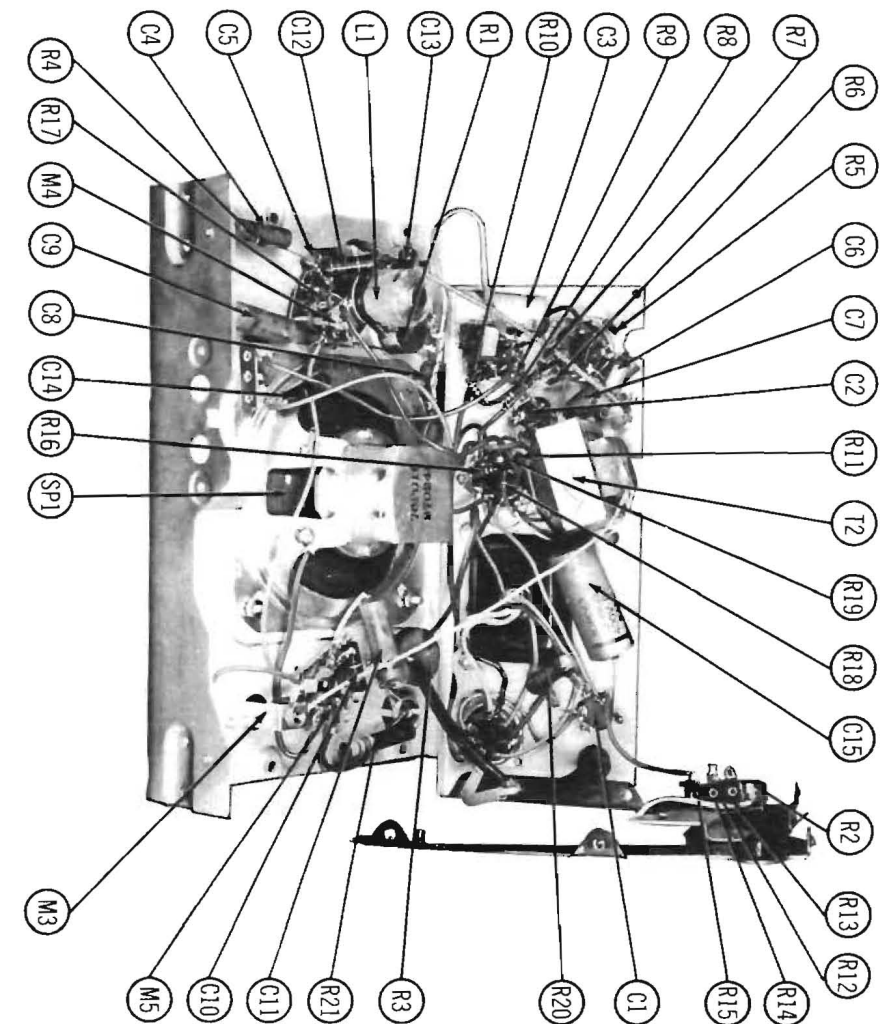
### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			WEBCOR PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1A	3AG	1A @ 250V			312001 (3AG-1Amp)		AGC-1	
B	3AG	1A @ 250V			312001 (3AG-1Amp.)		AGC-1	

### MISCELLANEOUS

ITEM No.	PART NAME	WEBCOR PART No.	NOTES
M2	Pilot Light		Type #51
M3	Neon Bulb		Record Level Indicator (Type NE51)
M4	Switch	32P040	Record-Playback Selector
M5	Switch	32P041	Output Selector

## CHASSIS—BOTTOM VIEW

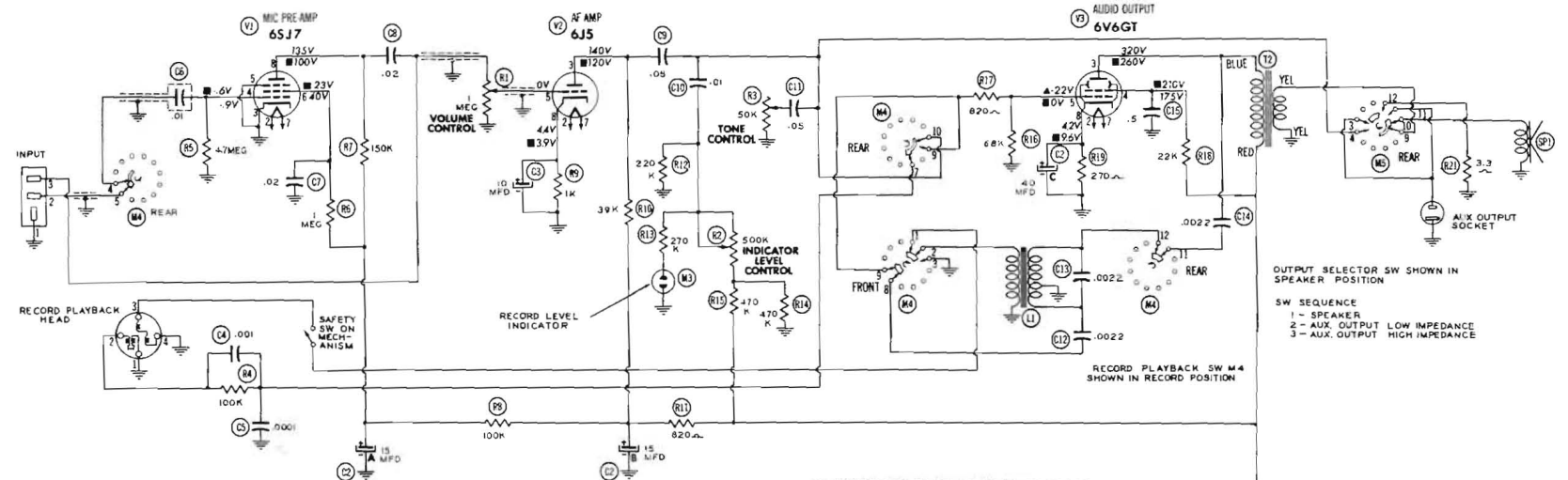


SET 221

FOLDER 13

WEBCOR  
MODEL 181-R

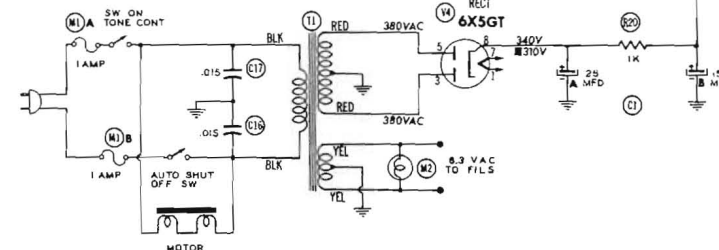
WEBCOR  
MODEL 181-R



THE COOPERATION OF THE MANUFACTURERS OF THIS EQUIPMENT MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

RESISTANCE READINGS								
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	6SJ7	0Ω	.10	0Ω	4.7Meg	0Ω	11.1Meg	.10
V 2	6J5	0Ω	.10	141KΩ	INF	10Ω	INF	1KΩ
V 3	6V6GT	0Ω	.10	11.4KΩ	123KΩ	68KΩ	11KΩ	.10
V 4	6X5GT	INF	.10	150Ω	183Ω	INF	.10	250KΩ

ALL MEASUREMENTS TAKEN IN "RECORD" POSITION UNLESS OTHER SPECIFIED  
 ■ MEASURED IN "PLA T-BACK" POSITION  
 † MEASURED FROM PIN 8 OF V4.  
 \* TAKEN WITH VACUUM TUBE VOLTMETER



A PHOTOFAC STANDARD NOTATION SCHEMATIC  
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221-13

- 1 - DC voltage measurements are at 20,000 ohms per volt, AC voltages measured at 1000 ohms per volt.
- 2 - Socket connections are shown as bottom views.
- 3 - Measured values are from socket pin to common negative.
- 4 - Line voltage maintained at 117 volts for voltage readings.
- 5 - Nominal tolerance on component values makes possible a variation of  $\pm 15\%$  in voltage and resistance readings.
- 6 - All controls at minimum, proper output load connected.